

Wireless Communications System With Combining Of Multiple Paths Selected From
Sub-Windows In Response To The Primary Synchronization Channel

ABSTRACT OF THE DISCLOSURE

A wireless receiver (UST). The receiver comprises at least one antenna (ATU) for receiving a plurality of frames (FR) in a form of a plurality of paths. Each of the plurality of frames comprises a plurality of time slots (SL_N), and each of the plurality of time slots comprises a plurality of symbols;. Further, each of the plurality of paths has a corresponding sample position, wherein the plurality of symbols comprise a primary synchronization code symbol (PSC). The receiver further comprises circuitry (52) for correlating a primary synchronization code across a group of the plurality of symbols and circuitry (52) for identifying a plurality of path positions within the group. Each of the plurality of path positions corresponds to a respective one of a plurality of largest-amplitude paths represented within the group as detected in response to the circuitry for correlating. The receiver further comprises circuitry (56) for defining a plurality of sub-windows. Each of the plurality of sub-windows comprises a plurality of sample positions, and each of the plurality of sub-windows includes at least one of the plurality of identified path positions. Finally, the receiver further comprises circuitry (54, 58) for combining paths selected from the sample positions within the plurality of sub-windows.

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